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EXAMINER
NOLAN, DANIEL A

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2654	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/661,394	Applicant(s) KOMORI ET AL.	
	Examiner Daniel A. Nolan	Art Unit 2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 September 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *23,24,28,29,32-34,37 and 38* is/are allowed.

6)☒ Claim(s) *1-22,25-27,30,31,35 and 36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 September 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *3 & 4* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification, such as:

- The language of the 1st three lines (of page 2) should be reworded, as it is subject to interpretation.
- The sentence of lines 4-5 (page 20) can similarly be taken as contradictory.

2. The summary of the invention is not a summary at all, but amounts to a mere recitation of the claims that is contrary to the spirit and intent of CFR § 1.73:

> *"Summary of the invention: A brief summary of the invention indicating its nature and substance, which may include a statement of the object of the invention, should precede the detailed description. Such summary should, when set forth, be commensurate with the invention as claimed and any object recited should be that of the invention as claimed."*

At 12 pages, the summary is not brief.

Furthermore, permitting this cosmetic makeover of the claims to be considered part of the disclosure would amount to having the claims provide the only specification for themselves. Such invalid circular reasoning cannot be allowed.

Appropriate correction is required.

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested:

"*Environment Compensation by Experience for Speech Recognition Communications*".

Claim Objections

4. Claims 6-20 are objected to because of the following informalities:

- The numbering of the claims is inconsistent with the guidelines established in the MPEP relating to claims being numbered in sequence and in order of dependencies. See MPEP § 608.01(i) and 37 CFR 1.75(g).
- The claims of the immediate application have been numbered so as to place claims with similar wording together, making dependencies unclear and needlessly complicating the prosecution of the case.
- No correction is possible at this time because the MPEP stipulates that the original numbering of claims will be preserved. The claims will be renumbered accordingly should the case be allowed. That this objection has been coined will serve to advise the applicant of the difficulty presented and to require that any subsequent amendment or filings submitted from the same origin not have this problem.

Claim Objections

5. Claims 34-38 are objected to because of the following informalities:

- Colons are missing from the end of the preamble to the claims (page 38 lines 5, 15 & 26 and page 39 lines 11 & 24).
- The Examiner is proceeding with the understanding that
    - The lines (above) end with the phrase "*causing a computer to function as:*"
    - Indicating that the features of the claim (indented lines 6, 9, etc.) are subordinate to the preamble (lines 2-5, etc.).
- The punctuation in claim 37 is not consistent, making the features of the claim subject to interpretation (end of lines 15 & 17).
- The Examiner is proceeding with the understanding that:
    - The word "and" is removed from the end of line 15, and
    - The comma in line 17 is replaced with a semicolons.
- Claim 38 should follow the same grammatical organization, for consistency.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Kato *et al*

7. Claims 1-3, 6-7, 10-17, 19-22, 25-27, 30-31 & 35-36 are rejected under 35 U.S.C. 102(e) as being directly anticipated by Kato *et al* (U.S. Patent 6,263,202).

8. Regarding claim 1, Kato *et al* discloses that their *Communications System and Wireless Terminal* applies to the features as follows:

- Kato *et al* (figure 2) reads on the feature of *a speech input terminal* (1201) *for transmitting speech data* (12) *to a speech recognition apparatus* (3204) *through a wire or wireless communication network* (14).

- Kato *et al* (figure 7) reads on the feature of *speech input means* (401)
- Kato *et al* (figure 7) further reads on the features of *means for creating information for speech recognition* (403) *which is unique to* that *speech input terminal or represents an operation state*
- Kato *et al* (figure 7) further reads on the feature of *communication means for transmitting the information to* that *speech recognition apparatus* (406).

9. Regarding claim 2, the claim is set forth with the same limits as claim 1.

Kato *et al* (403 in figure 7) reads on the feature that *the information is based on at least one of a characteristic of* that *speech input means, a noise characteristic, and a speaker characteristic.*

10. Regarding claim 3, the claim is set forth with the same limits as claim 1.

Kato *et al* (404 in figure 7) reads on the feature of *converting the speech data on the basis of the conversion condition* (as in column 3 lines 3-16) *when a data conversion condition for communication based on the information is received from* that *speech recognition apparatus.*

11. Regarding claim 6, Kato *et al* (figure 2) reads on the features of:

- A *speech recognition means* (1202) *for executing speech recognition processing for speech data transmitted from a speech input terminal* (1201) *through a wire or wireless communication network* (14)*; and*

- Kato *et al* (figure 2) reads on the feature of the *means for receiving information for speech recognition* (3201), *which is unique to* that *speech input terminal or represents an operation state from* that *speech input terminal* (3202),
- Kato *et al* (figure 2) reads on the feature that *wherein* that *speech recognition means executes speech recognition processing on the basis of the information* (3204).

12. Regarding claim 7, Kato *et al* (figure 2) reads on the features of
- A *speech recognition apparatus for executing speech recognition processing for speech data transmitted from a speech input terminal through a wire or wireless communication network* (18) *comprising:*
- Kato *et al* (figure 22a) reads on the feature of *means for creating information for speech recognition* (904) *which is unique to* that *speech input terminal or represents an operation state, on the basis of the transmitted speech data; and*
- Kato *et al* (figure 18A) reads on the feature of *means for executing speech recognition processing* (502) *on the basis of the information.*

13. Regarding claim 10, Kato *et al* (figure 2) reads on the features of
- A *speech recognition apparatus for executing speech recognition processing for speech data transmitted from a speech input terminal through a wire or wireless communication network* (18) *comprising:*

- Kato *et al* (figure 2) reads on the feature of a *means for receiving information for speech recognition* that is *unique to* that *speech input terminal or represents an operation state from* that *speech input terminal* (as *conversion type data* from 3201 to 3202) and the *means for determining a data conversion condition for communication on the basis of the information*
- Kato *et al* (figure 2) reads on the feature of *a means for transmitting the data conversion condition to* that *speech input terminal* (3204).

14. Regarding claim 11, Kato *et al* (figure 2) reads on the features of
- A *speech recognition apparatus for executing speech recognition processing for speech data transmitted from a speech input terminal through a wire or wireless communication network* (18) *comprising:*
- Kato *et al* (figure 2) reads on the feature of a *means for creating information for speech recognition, which is unique to* that *speech input terminal or represents an operation state, on the basis of the transmitted speech data* (column 7 lines 4-13).
- Kato *et al* (figure 2) reads on the feature of a *means for determining a data conversion condition for communication on the basis of the information* (column 3 lines 3-16)
- Kato *et al* (figure 2) reads on the feature of a *means for transmitting the data conversion condition to* that *speech input terminal* (column 6 line 4).

15. Regarding claims 12 and 13; the claims are set forth with the same limits as claims 10 and 11, respectively. Kato *et al* reads on the feature of *a data conversion condition based on a quantization table created on the basis of information* (column 7 lines 1-2).

16. Regarding claims 14, 15, 16, 17 & 18; the claims are set forth with the same limits as claims 6, 7, 10, 11 & 8, respectively. Kato *et al* (in figure 23) reads on the feature of *storing the information in correspondence with each speech input terminal* (column 164) *when speech input terminal comprises a plurality of speech input terminals.*

17. Regarding claims 19 and 20; the claims are set forth with the same limits as claims 10 and 11, respectively. Kato *et al* (column 8 line 35) reads on the feature that when the *speech input terminal comprises a plurality of speech input terminals, storing the data conversion condition* (as disclosed in column 3 lines 3-16) *in correspondence with each of* that *speech input terminals.*

18. With regard to claim 21, Kato *et al* (figure 2) applies to the features as follows:

- Kato *et al* (12 & 18) reads on *a speech communication system comprising a speech input terminal and a speech recognition apparatus which can communicate with each other through a wire or wireless communication network*

- Kato *et al* (1201) reads on that *speech input terminal comprises speech input means,*
- Kato *et al* (403 figure 7) reads on *means for creating information for speech recognition* that *is unique to* that *speech input terminal or represents an operation state,*
- Kato *et al* (406 figure 7) reads on the feature of *communication means for transmitting the information to* that *speech recognition apparatus, and*
- Kato *et al* (36 in figure 3) reads on the feature that the *speech recognition apparatus comprises means for executing speech recognition processing on the basis of the information.*

19. With regard to claim 22, Kato *et al* (figure 2) applies to every feature as follows:
- Kato *et al* (12 & 18) reads on *a speech communication system comprising a speech input terminal and a speech recognition apparatus which can communicate with each other through a wire or wireless communication network*
- Kato *et al* (403 figure 7) reads on *means for creating information for speech recognition unique to* that *speech input terminal or represents an operation state,*
- Kato *et al* (406 figure 7) reads on the feature of *communication means for transmitting the information to* that *speech recognition apparatus, and*
- Kato *et al* (36 in figure 3) reads on the feature that the *speech recognition apparatus comprises means for executing speech recognition processing on the basis of the information.*

20. With regard to claim 25, Kato *et al* (figure 2) applies to every feature as follows:

- Kato *et al* (12 & 18) reads on *a speech communication method comprising a speech input terminal and a speech recognition apparatus which can communicate with each other through a wire or wireless communication network*
- Kato *et al* (403 figure 7) reads on *means for creating information for speech recognition* that *is unique to* that *speech input terminal or represents an operation state*,
- Kato *et al* (406 figure 7) reads on the feature of *communication means for transmitting the information to* that *speech recognition apparatus.*

21. Regarding claims 26 and 35, Kato *et al* (figure 2) applies to every feature as follows:

- Kato *et al* (12 & 18) reads on the *method of executing speech recognition processing for speech data transmitted from a speech input terminal through a wire or wireless communication network*
- Kato *et al* (parameters to 3202) reads on *receiving information for speech recognition unique to* that *speech input terminal or represents an operation state*,
- Kato *et al* (3204) reads on the feature *of executing speech recognition processing on the basis of the information.*

22. With regard to claim 27, Kato *et al* (figure 2) applies to every feature as follows:

- Kato *et al* (12 & 18) reads on *a speech communication method of executing speech recognition processing for speech data transmitted from a speech input terminal through a wire or wireless communication network*
- Kato *et al* (403 figure 7) reads on *means for creating information for speech recognition unique to* that *speech input terminal or represents an operation state,*
- Kato *et al* (36 in figure 3) reads on the feature *of executing speech recognition processing on the basis of the information.*

23. With regard to claim 30, Kato *et al* (figure 2) applies to every feature as follows:

- Kato *et al* (as 2nd parameter set to 1202) reads on the feature of *creating information for speech recognition, which is unique to* that *speech input terminal or represents an operation state*
- Kato *et al* (1205) reads on the feature of *transmitting the information to the speech recognition apparatus*
- Kato *et al* (in 34) reads on the feature of *executing speech recognition processing on the basis of the information.*

24. Regarding claims 31 and 36, Kato *et al* (figure 2) applies to every feature as follows:

- Kato *et al* (as 2nd parameter set to 1202) reads on the feature of *creating information for speech recognition, which is unique to* that *speech input terminal or represents an operation state*
- Kato *et al* (in 34) reads on the feature of *executing speech recognition processing on the basis of the information.*

Claim Rejections - 35 USC § 103

25. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which that subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

26. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Kato *et al* & Schliwa

27. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kato *et al* in view of Schliwa (U.S. Patent 6,223,161).

28. Regarding claim 4, the claim is set forth with the same limits as claim 1.

- Kato *et al* (column 7 lines 42-55) reads on the feature of *means for storing the information;*
- Where Kato *et al* does not disclose that information will not be replenished unless necessary, Schliwa (4th item in figure 4) reads on the features of providing for a *means for determining whether there has been a change in the information in each communication; and means for, when there has been no change in the information, notifying* that *speech recognition apparatus of the corresponding information.*
- It would have been obvious for a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method of Schliwa to the device/method of Kato *et al* because Schliwa teaches the convention of checking the usage buffer before making an unnecessary change to the present settings of the apparatus.

Kato *et al* & Nagai *et al*

29. Claims 5, 8, 9 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato *et al* in view of Nagai *et al* (U.S. Patent 6,058,365).

30. Regarding claims 5 and 8-9; the claims are set forth with the same limits as claims 1, 6 and 7, respectively.

- While Kato *et al* (figure 5) reads on the feature that the *communication means transmits the information* (50) *and/or the speech recognition model to* that *speech recognition apparatus,* they do not detail speech recognition process to the level of detail that would disclose *creating a speech recognition model.*
- Nagai *et al* (109 in figure 1) reads on the feature of *means for creating a speech recognition model* (column 3 lines 61-64) *on the basis of the information.*
- It would have been obvious for a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method of Nagai *et al* to the device/method of Kato *et al* because Nagai *et al* teaches one to save time by creating a model for immediate processing to known models.

31. Regarding claim 18, the claim is set forth with the same limits as claims 8. Kato *et al* (column 8 line 35) reads on the feature that when the *speech input terminal comprises a plurality of speech input terminals, storing the speech recognition model in correspondence with each of* that *speech input terminals.*

Allowable Subject Matter

32. Claims 23-24 28-29 32-34 and 37-38 are allowed.

33. The following is a statement of reasons for the indication of allowable subject matter:

- Heuristic or learning transmitters either retain successful parameters until successful acknowledgement is received and the settings fed back and stored for future use, or make an evaluation based on this immediate feedback.
- *Such feedback may be effectively transmitted between adjacent components in a "closed system".*
- Those immediate application claims indicated as allowable have the settings *transmitted back to the receiver through the network from the speech processor.*
- The closest prior art of record, Kato *et al* '202, *has no feedback* suggested from the receiver/converter to the transmitter/input terminal.
- As the next closest prior art of record, Watari *et al* employs an intervening *control unit* between input terminals and host so does meet the featured condition of terminal communication with host. Further, the information passed is confined to content and availability, and does not include the *environmentals* defined in the instant specification as making up the feature incorporating transmitting of the *data conversion condition.*

- Regarding claims 23-24 28-29 32-34 and 37-38, the settings *are established in the remote component and sent to the transmitter* for future use. Consequently, the feature where *the speech recognition processing transmits the data conversion condition (& information) to the speech input terminal* is neither anticipated nor is it found in obvious combination in the prior art of record.

Conclusion

34. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Watari *et al* (U.S. Patent 4,385,359) remotely communicates from multiple input speech/voice terminals to a central host, with information being passed back to the input terminals regarding use and availability.
- Hemphill (U.S. Patent 5,774,628) provides a closed system that maintains its own grammar.
- Yasuhiro *et al* (Japan Patent 2001-086239) is the parent of this application, translated to provide understanding of the invention because the immediate application provided no concise understanding of the patentable features of the invention or improvements over prior art.
- Tomohiro (Japan Patent 2001-067094) adjusts the noise parameters based on the success indicated by the receiver.
- Hirokai (Japan Patent 06-124097) is a responsive receiver that retains settings.
- Shinichi (Japan Patent 06-149290) is a closed circuit retaining noise settings.

- Takashi (Japan Patent 07-092989 and 04-318900) retains settings in table form for multiple speech/voice input terminals.

35. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Daniel A. Nolan at telephone (703) 305-1368 whose normal business hours are Mon, Tue, Thu & Fri, from 7 AM to 5 PM.

If attempts to contact the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold, can be reached at (703) 305-4379.

The fax phone number for Technology Center 2600 is (703) 872-9314. Label informal and draft communications as "DRAFT" or "PROPOSED", & designate formal communications as "EXPEDITED PROCEDURE".

Formal response to this action may be faxed according to the above instructions, or mailed to: Commissioner of Patents and Trademarks
Washington, D.C. 20231

or hand-delivered to: Crystal Park 2,
2121 Crystal Drive, Arlington, VA,
Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Technolocy Center 2600 Customer Service Office at telephone number (703) 306-0377.

Daniel A. Nolan
Examiner
Art Unit 2654

dan

September 17, 2002

Marsha D Banks-Harold
MARSHA D. BANKS-HAROLD
SUPERVISORY PATENT EXAMINER
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